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ABSTRACT

Student questionnaires were administered to 61 students with disabilities currently enrolled in community colleges in Kansas (n=20), Minnesota (n=23), and California (n=18). This information was collected through two campus visits during the fall of 1999. Students reported an average of 1.3 disabilities per person, ranging from 1-6. The most frequently reported disability type was learning disabilities (LD), affecting approximately half of the students. Given this high proportion of LD, additional analyses were conducted to compare the students with LD with students with other disabilities. Results from the questionnaires indicate the students' greatest difficulties were with concentration, distraction, frustration, test anxiety, remembering, and mathematics. The most frequent accommodations and services mentioned were notetakers, extended testing time, or quiet testing rooms, and tutors. The tutors were available for all of the students through the college's learning center or library. There were no tutors specifically designated for students with disabilities. Students rated several issues in selecting and using accommodations as very important, such as the amount of training required, task appropriateness, personal cost, availability, independence, and disability specificity. Overall, students appeared satisfied with the accommodations they were receiving. Data tables are included that illustrate questionnaire results. (CR)

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Experiences of Students with Disabilities in Selected Community and Technical Colleges

February 2001

The Individual Accommodations Model:
Accommodating Students with Disabilities in Post-Secondary Settings

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Experiences of Students with Disabilities in Selected Community and Technical Colleges

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University of Kansas
Center for Research on Learning
Division of Adult Studies

February, 2001

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Experiences of Students with Disabilities in Selected Community and Technical Colleges

Student questionnaires were administered to 61 students with disabilities currently enrolled in community colleges in Kansas (n=20), Minnesota (n=23), and California (n=18). This information was collected through the course of 2 campus visits during the spring and fall of 1999. Unless otherwise noted, all summaries are of students completing the questionnaire for the first time. The students were nominated by college staff and paid an incentive for their participation.

The data in Table 1 indicates the students varied in age (mean age=30.45), with only one-third of the "typical" college age of 18-21. The sample was predominantly white, non-parents, with both genders represented equally. The data in Table 2 indicates that one-third were employed (of those, mostly part-time), and about one-third were financially independent. According to Table 3, about half of the sample was enrolled in 9 to 13 credit hours, with one quarter enrolled in less than 9 and the final quarter enrolled in more than 13. The majority stated an AA or AS degree as their current goal, with plans to transfer to a four-year college.

Students reported an average of 1.3 disabilities per person, ranging from 1-6 (Table 5). The most frequently reported disability type was learning disabilities (n = 29), affecting approximately half of the students (Table 4). Given this high proportion of LD, additional analyses (Tables 12 and 13) were conducted to compare the students with LD with students with other disabilities. Orthopedic or mobility-related disabilities affected about one-third. The students' greatest difficulties were with concentration, distraction, frustration, test anxiety, remembering, and mathematics (Tables 5 and 6). The most frequent accommodations and services mentioned were notetakers, extended testing time or quiet testing rooms, and tutors (Tables 7 and 8). The tutors were available for all of the students such as through the college's learning center or library. They were not tutors specifically designated for students with disabilities. Students rated several issues in selecting and using accommodations as "very" important, such as the amount of training required, task appropriateness, personal cost, availability, ease of use, independence, and disability specificity (Table 9). Overall, students appeared satisfied with the accommodations they were receiving (Table 10), although the extent of their satisfaction was somewhat related to the type of disability they experienced. In general, a small, mostly nonsignificant (underpowered) trend was observed for students with physical disabilities to report greater satisfaction than students with non-physical disabilities.

Additionally, 19 students completed the instrument twice, and these students were compared across several of the items. Nine of these students were employed at Time 1 (Spring 1999), and two more were employed at Time 2 (Fall 1999). The number of credit hours taken by the students stayed constant for 4, increased for 2, and

decreased for 11. Twelve of the students reported the same education goal at both times (AA/AS degree for 11, completion of general education requirements for 1), while 4 (20%) reported a different goal. The reported number of disabilities remained constant for 15 of the students, and decreased for 4. The reported number of academically related difficulties stayed constant for 4 students, increased for 6, and decreased for 8. Finally, the reported number of accommodations currently used was constant for 8 students, increased for 5, and decreased for 4.

The high frequency of student participants with learning disabilities allowed for more detailed analyses of this group of students. Our analyses included comparing the students with learning disabilities (n = 29) with the students with other types of disabilities. These analyses are summarized in Table 12. While statistical tests did not reveal statistically significant results (p-values > .05), the trends suggested that students with LD were younger and had corresponding less college experience (e.g., fewer credits and fewer hours enrolled). They were also likely to work fewer hours per week in a job and were less likely to have children. They were also likely to report more disabilities.

In Table 13 the percentages of each group are reported who responded "yes" to a variety of questions. The calculated chi-square and associated p-value is also tabled. The data show differences between these groups on several variables, even those variables for which the calculated p-value was not statistically significant. Congruent with the finding that students with LD are less likely to have children is the finding that they are less likely to be married. They were also less likely to be involved in clubs or organizations outside of the college setting (25% vs. 53%), which may have implications for their feelings of connection to the community and social support. They may also be less involved because of higher rates of employment or their sense of need to focus on their academic pursuits because of their higher percentage of attention (89% vs. 60%) and cognitive difficulties (96% vs. 73%).

One difference, however, was that the students with LD reported that they were employed (46%) at a higher rate than the other students with disabilities (28%). An interesting contrast is that they worked fewer hours per week in those jobs. Since their employment rates were higher, they were also less likely to receive benefits from social security, either supplemental security income (3% vs. 53%) or social security disability income (20% vs. 37%). Their access was also less limiting than for students with other disabilities (13% vs. 60%).

In summary our limited data on these students did provide some statistically significant differences between students with LD and those students with other disabilities. A very important comparison not available in this data set is how these students compare to the general student population and to students with disabilities who had not self-identified themselves as students with disabilities to the college's office for student services. Such comparative information seems very important to targeting the resources for improving the recruitment, retention, and completion.

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Table 1

Age, Gender, Ethnicity, & Parental Status

Age (mean=30.45; sd = 11.32)		**Count**	**Valid %**	**Cumulative %**
	18-21	20	*33.3*	*33.3*
	22-25	10	*16.7*	*50.0*
	30-35	11	*18.3*	*68.3*
	36-44	8	*13.3*	*81.7*
	45-52	11	*18.3*	*100.0*
	Missing	1		

Gender	**Count**	**Valid %**
Male	30	*49.2*
Female	31	*50.8*

Ethnicity	**Count**	**Valid %**
White	45	*75.0*
Black	6	*10.0*
Asian	3	*5.0*
Hispanic	3	*5.0*
White & Hispanic	2	*3.3*
Amer. Ind., Black, & White	1	*1.7*
Missing	1	

(table continues)

Parental Status	Count	Valid %	Cumulative %
None	43	*72.9*	*72.9*
1 child	4	*6.8*	*79.9*
2 children	8	*13.6*	*93.2*
3 children	1	*1.7*	*94.9*
4 children	2	*3.4*	*98.3*
6 children	1	*1.7*	*100.0*
Missing	2		

Table 2

Financial and Employment Background

	Yes		No		Missing
Financial Status	**Count**	**Valid%**	**Count**	**Valid%**	**Count**
Financially Independent	22	*37.9*	36	*62.1*	3
Vocational Rehabilitation	25	*43.1*	33	*56.9*	3
Client					
Has Social Security Disability	18	*29.5*	43	*70.5*	0
Has Social Security	18	*29.5*	43	*70.5*	0
Has Lost Benefits	7	*11.7*	53	*88.3*	1
Has Financial Aid for College	32	*54.2*	27	*45.8*	2

(table continues)

	Yes		No		Missing
	Count	Valid%	Count	Valid%	Count
Currently Employed	22	*36.7*	38	*63.3*	1
Part-Time	19	*90.5*			
Full-Time	2	*9.5*			

Table 3

Enrollment Status and Educational Goals

Enrollment	Count	Valid %	Cumulative%
3 to 8 hours	17	*27.9*	*27.9*
9 to 13 hours	29	*47.5*	*75.4*
14 to 19 hours	15	*24.6*	*100.0*

Current Goal	Count	Valid %
AS/AS degree	37	*64.9*
Vocational Certificate	5	*8.8*
College Experience	4	*7.0*
Finish General Requirements	9	*15.8*
Don't Know	1	*1.8*
Become a Self-Advocate	1	*1.8*
Missing	4	

(table continues)

Educational Plans	Count	Valid %
Other 2-year College	3	*5.7*
4-year University	37	*69.8*
Independent/Specialized Training	6	*11.3*
Don't Know	7	*13.2*
Missing	8	

Future Work Plans	Count	Valid %
Professional	22	*75.9*
Clerical	2	*6.9*
Don't Know	5	*17.2*
Missing	32	

Table 4

Documented Disabilities

Disability	Response Count	% Responses	% Cases
Visually Impaired/Blind	6	*6.5*	*10.2*
Hard of Hearing/Deaf	8	*8.7*	*13.6*
Orthopedic/Mobility	17	*18.5*	*28.8*
Speech/Language	4	*4.3*	*6.8*
Learning Disability	29	*31.5*	*49.2*
Emotional/Behavioral	7	*7.6*	*11.9*
Head Injuries	9	*9.8*	*15.3*
Chronic Illness	5	*5.4*	*8.5*
Chronic Pain	2	*2.2*	*3.4*
Mental Health	1	*1.1*	*1.7*
Epilepsy	1	*1.1*	*1.7*
Multiple Sclerosis	2	*2.2*	*3.4*
ADD	1	*1.1*	*1.7*
Totals	92	*100*	*100*

Table 5

Number of Disabilities Reported

Number of Disabilities	Count	Valid %	Cumulative %
1	41	*69.5*	*69.5*
2	10	*16.9*	*86.4*
3	3	*5.1*	*91.5*
4	4	*6.8*	*98.3*
5	0	*0*	*98.3*
6	1	*1.7*	*100.0*
Missing	2		

Table 6

Reported* Attentional, Emotional, & Verbal Difficulties

	Response Count	% Responses	% Cases
Attentional Difficulties (43/59)			72.9
Completing Assignments	3	0.6	5.1
Concentration	27	5.8	45.8
Daydreaming	16	3.4	27.1
Distraction	24	5.2	40.7
Following Directions	19	4.1	32.2
Organization/Time	4	0.9	6.8
Management			
Paying Attention	22	4.7	37.3
Sitting Still or in One Place	17	3.7	28.8
Staying on Track	16	3.4	27.1
Study Habits	21	4.5	35.6
Working Independently	4	0.9	6.8
Totals	173	37.3	26.7

(table continues)

	Response Count	% Responses	% Cases
Emotional Difficulties (43/59)			**72.9**
Adapting to Change	6	*1.3*	*10.2*
Frustration	29	*6.3*	*49.2*
Getting Along with Others	4	*0.9*	*6.8*
Test Anxiety	30	*6.5*	*50.8*
Totals	69	*14.9*	*29.3*
Verbal Difficulties (21/59)			**35.6**
Asking Questions	2	*0.4*	*3.4*
Self-Expression	13	*2.8*	*22.0*
Speaking to a Crowd	12	*2.6*	*20.3*
Talking with Teacher & Others	6	*1.3*	*10.2*
Totals	33	*7.1*	*14.0*

*** Total number of responses = 464; Total number of respondents = 59**

Table 7

Reported* Accessibility & Cognitive Difficulties

	Response Count	% Responses	% Cases
Accessibility Difficulties (22/59)			*37.3*
Hearing the Teacher	9	*1.9*	*15.3*
Classroom Access	12	*2.6*	*20.3*
Seeing in Classroom	10	*2.2*	*16.9*
Totals	31	*6.7*	*17.5*
Cognitive Difficulties (50/59)			*84.7*
Letter/Number Reversals	7	*1.5*	*11.9*
Mathematics	25	*5.4*	*42.4*
Memory Retrieval	24	*5.2*	*40.7*
New Vocabulary	14	*3*	*23.7*
Reading	21	*4.5*	*35.6*
Remembering	28	*6.0*	*47.5*
Spelling	22	*4.7*	*37.3*
Writing Papers	17	*3.7*	*28.8*
Totals	158	*34.1*	*33.5*

*** Total number of responses = 464; Total number of respondents = 59**

Table 8

Reported* Testing Accommodations, Service, & Equipment Use

	Count	% Responses	% Cases
Testing			
Alternative Testing Formats	3	*1.8*	*5.5*
Earplugs	1	*0.6*	*1.8*
Extended Testing Time	26	*15.4*	*47.3*
Quiet Testing Room	18	*10.7*	*32.7*
Totals	48	*28.4*	*21.8*

(table continues)

	Count	% Responses	% Cases
Services & Personnel			
Additional Outside Help	6	*3.6*	*10.9*
Copy Instructor's Notes	1	*0.6*	*1.8*
Counseling w/ MH Counselor	1	*0.6*	*1.8*
Early Registration	1	*0.6*	*1.8*
Excell Program	2	*1.2*	*3.6*
Interpreters	4	*2.4*	*7.3*
Learning Center	2	*1.2*	*3.6*
Notetaker	28	*16.6*	*50.9*
Reader	2	*1.2*	*3.6*
Shorter Class Time	1	*0.6*	*1.8*
Study Skills Course	2	*1.2*	*3.6*
Tutors	13	*7.7*	*23.6*
Totals	63	*37.2*	*9.4*
Equipment			
Adaptive Technology	5	*3.0*	*9.1*
Calculator	1	*0.6*	*1.8*
Special Equipment	2	*1.2*	*3.6*
Totals	8	*4.7*	*4.8*

*** Total number reported = 169**

Table 9

Reported* Auditory, Visual, Transportation, & Access Accommodation Use

	Count	% Responses	% Cases
Auditory Assistance			
Captioning Device	3	*1.8*	*5.5*
Overhead for Public Speaking	1	*0.6*	*1.8*
Sign Language Signs	2	*1.2*	*3.6*
Sitting in Front of Classroom	5	*3*	*9.1*
Tape Recorder	7	*4.1*	*12.7*
Taped Notes/Texts	4	*2.4*	*7.3*
Textbooks on Tape	4	*2.4*	*7.3*
TTY	1	*0.6*	*1.8*
Totals	27	*16.0*	*6.1*
Visual Assistance			
Brailled Texts	1	*0.6*	*1.8*
Computer Screen Magnifier	1	*0.6*	*1.8*
Enlarged Materials	2	*1.2*	*3.6*
Totals	4	*2.4*	*2.4*

(table continues)

	Count	% Responses	% Cases
Transportation & Access			
Automatic Doors	3	*1.8*	*5.5*
Handicapped Parking	2	*1.2*	*3.6*
Lift for Vans	1	*0.6*	*1.8*
Public Transportation	3	*1.8*	*5.5*
Raised Desk	7	*4.1*	*12.7*
Stair Lift	1	*0.6*	*1.8*
Table to Replace Desk	2	*1.2*	*3.6*
Totals	19	*11.2*	*4.9*

* Total number reported = 169

Table 10

Frequency (%) for Accommodation Issues Importance Ratings

	Importance Ratings				
Selection Issues	**none**	**little**	**moderate**	**important**	**very**
Training Required	7 *(11.5)*	2 *(3.3)*	12 *(19.7)*	13 *(21.3)*	22 *(36.1)*
Task Appropriateness	2 *(3.3)*	2 *(3.3)*	7 *(11.5)*	18 *(29.5)*	27 *(44.3)*
Personal Cost	4 *(6.6)*	3 *(4.9)*	9 *(14.8)*	14 *(23.0)*	26 *(46.4)*
Cost to School	15 *(24.6)*	6 *(9.8)*	13 *(21.3)*	9 *(14.8)*	15 *(24.6)*
Availability	1 *(1.6)*	1 *(1.6)*	3 *(19.7)*	12 *(19.7)*	40 *(65.6)*
Ease of Use	2 *(3.3)*	1 *(1.6)*	1 *(1.6)*	22 *(36.1)*	31*(50.8)*
Effectiveness			1 *(1.6)*	13 *(21.3)*	42 *(68.9)*
Independence	1 *(1.6)*	3 *(4.9)*	3 *(4.9)*	11 *(18.0)*	37 *(60.7)*
Used by Other Students	14 *(23.0)*	7 *(11.5)*	13 *(21.3)*	13 *(21.3)*	8 *(13.1)*
Own Previous Use	9 *(14.8)*	3 *(4.9)*	12 *(19.7)*	16 *(26.2)*	16 *(16.2)*
Social Acceptance	6 *(9.8)*	8 *(13.1)*	6 *(9.8)*	14 *(23.0)*	23 *(37.7)*
Specific Disability	1 *(1.6)*	3 *(4.9)*	10 *(16.4)*	9 *(14.8)*	33 *(54.1)*
Portability	4 *(6.6)*	3 *(4.9)*	12 *(19.7)*	11 *(18.0)*	26 *(42.6)*

Table 11

Frequency (%) Accommodation Selection Issues Opinions

I am satisfied	N/A	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
...with the manner in which my disability is discussed with me.	4 *(6.6)*	2 *(3.3)*	2 *(3.3)*	7 *(11.5)*	24 *(39.3)*	22 *(36.1)*
....that my disability related information is kept confidential.	5 *(8.2)*	1 *(1.6)*	2 *(3.3)*	5 *(8.2)*	19 *(31.1)*	28 *(45.9)*
...with the process used in selecting my accommodation.	6 *(9.8)*	1 *(1.6)*	3 *(4.9)*	5 *(8.2)*	25 *(41.0)*	20 *(32.8)*
...with the training I received.	15 *(24.6)*		1 *(1.6)*	9 *(14.8)*	19 *(31.1)*	15 *(24.6)*

(table continues)

I am satisfied	N/A	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
...with the effectiveness of my accommodation.	1 *(1.6)*	1 *(1.6)*	5 *(8.2)*	6 *(9.8)*	25 *(41.0)*	22 *(36.1)*
...with the accommodation provided for me.	1 *(1.6)*		6 *(9.8)*	4 *(6.6)*	27 *(44.3)*	22 *(36.1)*

Table 12

Comparisons of Students With and Without Learning Disabilities

Variable	Non-LD (n = 32)		LD (n = 29)			
	Mean	SD	Mean	SD	F-value	p-value
Age	32.26	11.82	28.52	10.63	1.65	.20
Years in college	2.23	1.67	1.71	1.44	1.58	.21
Credits enrolled	10.22	3.41	11.21	4.07	1.06	.31
Credits earned	36.72	26.83	33.36	35.66	.138	.71
Number of children	.83	1.53	.41	.82	1.69	.19
Hours worked per week	17.44	11.06	15.69	8.16	.17	.69
Number of disabilities	1.37	.67	1.76	1.33	2.07	.16

Table 13

Comparisons of Students With and Without Learning Disabilities Reporting "Yes"

	Non-LD	LD	X^2	p-value
Are you a parent?	34.4	24.1	.77	.38
Currently employed	28.1	46.4	2.15	.14
Supplemental Security Income?	53.1	3.4	18.05	.000
Social Security Disability Income	37.5	20.7	2.07	.15
Involvement in clubs outside of college?	53.1	25.9	4.49	.034
Attention difficulty?	60.0	89.7	5.12	.024
Emotional Difficulty?	56.7	10.3	8.12	.004
Accessibility Difficulty?	60.0	13.8	13.46	.000
Cognitive Difficulty?	73.3	96.6	6.15	.013